

REMARKS

Applicant hereby responds to the Office Action mailed March 6, 2003, in relation to the above-identified patent application. In that Office Action, the Examiner objected to the drawings and specification as being inconsistent due to the semiconductor package of the first embodiment being identified in the specification with the reference numeral "10", labeled in Figure 2 with the reference numeral "10", but purportedly being labeled in Figure 1 with the reference numeral "11".

Applicant respectfully submits that there is no inconsistency. In the modified version of Figure 1 presented with the prior July 16, 2002, Amendment, the reference numeral "10" in Figure 1 was deleted by three diagonal hatching lines. The Examiner has apparently mistaken these hatching lines for the reference numeral "11". In fact, neither the reference numeral "10" nor the reference numeral "11" is included in the modified version of Figure 1.

The Examiner has also requested that the application "be updated with application numbers and/or patent numbers". In response to this request, by this Amendment, Applicant has amended the specification of the present application and, in particular, the Table provided on page 10 thereof, to provide such updated application and/or patent numbers.

In addition, the Examiner now has disapproved the drawing corrections presented in Applicant's July 16, 2002, Amendment, despite the absence of any such objections in the October 15, 2002, Office Action responding to the July 16, 2002, Amendment. In any event, the modified drawings previously presented in Applicant's July 16, 2002, Amendment are resubmitted herewith with the changes therein being highlighted in yellow.

In the Office Action, the Examiner has further rejected Claims 1-4, 6-11, 13-18 and 20 under 35 U.S.C. §103(a) as being unpatentable over either European Patent Application No. 0989608 (the "European reference") or Japanese Patent No. 2000-150765 (the "Japanese reference"). Applicant notes that both the European and Japanese references are commonly owned foreign counterparts to U.S. Patent No. 6,281,568 (owned by Applicant as well) cited in the October 15, 2002, Office Action

and overcome pursuant to the provisions of 35 U.S.C. §103(c) based on the arguments presented in Applicant's prior Amendment of December 19, 2002. It also appears from this latest Office Action that the Examiner understands that the cited European and Japanese references, due to their respective publication dates, may be overcome by Applicant through its reliance upon the October 15, 1999, filing date of the priority Korean application. However, the Examiner has indicated that no reliance can be made upon the priority Korean application since a translation thereof has not been made of record in accordance with 37 C.F.R. §1.55.

Though Applicant may overcome the Section 103(a) rejections based upon the European and Japanese references by providing a certified translation of the priority Korean application, this exercise is not believed to be necessary since neither of the cited European or Japanese references teaches or suggests the inclusion of through-holes in a half-etched section of a chip paddle as recited in each of independent Claims 1 and 15, or a plurality of tabs in the half-etched section of the chip paddle as recited in independent Claim 8.

In the European reference, die pad 22 of the leadframe 20 is described as having a planar first surface 23 and an opposed, planar second surface 24. The die pad 22 is further described as having a planar third surface 25 which is also opposed to the first surface 23 and vertically recessed relative to the second surface 24. The third surface 24 is further described as surrounding the second surface 24. There is simply no teaching or suggestion in the European reference regarding any through-hole being disposed within the die pad 22 and extending between the first and third surfaces 23, 25 thereof. Nor is there any teaching or suggestion regarding a tab projecting from the third surface 24 or from the side surface 26 which is described in the European reference as extending orthogonally between the first and third surfaces 23, 25. Applicant notes that in the latest Office Action, the Examiner has not identified any reference numerals in the European reference which purportedly correspond to the through-hole or tab elements, despite corresponding reference numerals being identified for virtually every other element recited in Claims 1, 8 and 15. Thus, Applicant respectfully submits that independent Claims 1, 8 and 15 are not rendered obvious by

the European reference, and are in condition for allowance, as are the remaining pending claims as being dependent upon respective ones of these independent claims.

Since the cited Japanese reference is simply the Japanese counterpart to the European reference, Applicant respectfully submits that the rejection of Claims 1-4, 6-11, 13-18 and 20 can also not be sustained thereunder for the same reasons discussed above in relation to the European reference.

Applicant now turns to the rejection of Claims 1-20 under 35 U.S.C. §103(a) as being unpatentable over the Lerner et al. reference. The Lerner et al. reference is directed to a heat slug 400 which defines a die attach pad attachment surface 401 raised above a base surface 400a. The slug 400 further defines a surface 402 which is raised above a base surface 400b. The surface 402 remains exposed in a completed package which includes the slug 400. The slug 400 also includes slots 403 and fins 404 which are shown in Figure 4A.

In the Lerner et al. reference, the package is described as including a die 520 which is attached to a die attach pad surface 522b of a die attach pad 522. A surface 522a of the die attach pad 522 which is opposed to the surface 522b is described as contacting the die attach pad attachment surface 401 of the heat slug 400 (see column 5, lines 15-18). There is simply no teaching or suggestion in the Lerner et al. reference regarding the die attach pad 522 including a half-etched portion which is formed to include either through-holes or tabs for increasing bonding strength to an encapsulation material as recited in each of independent Claims 1, 8 and 15 of the present application. Thus, Applicant respectfully submits that Claims 1, 8 and 15 are not rendered obvious by the teachings of the Lerner et al. reference, and are in condition for allowance, as are the remaining claims as being dependent upon respective ones of these independent claims.


On the basis of the foregoing, Applicant respectfully submits that the stated objections and grounds of rejection have been overcome, and that Claims 1-20 are now in condition for allowance. An early Notice of Allowance is therefore respectfully requested.

If any additional fee is required, please charge Deposit Account Number 19-4330.

Date: 6/4/03

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Respectfully submitted,

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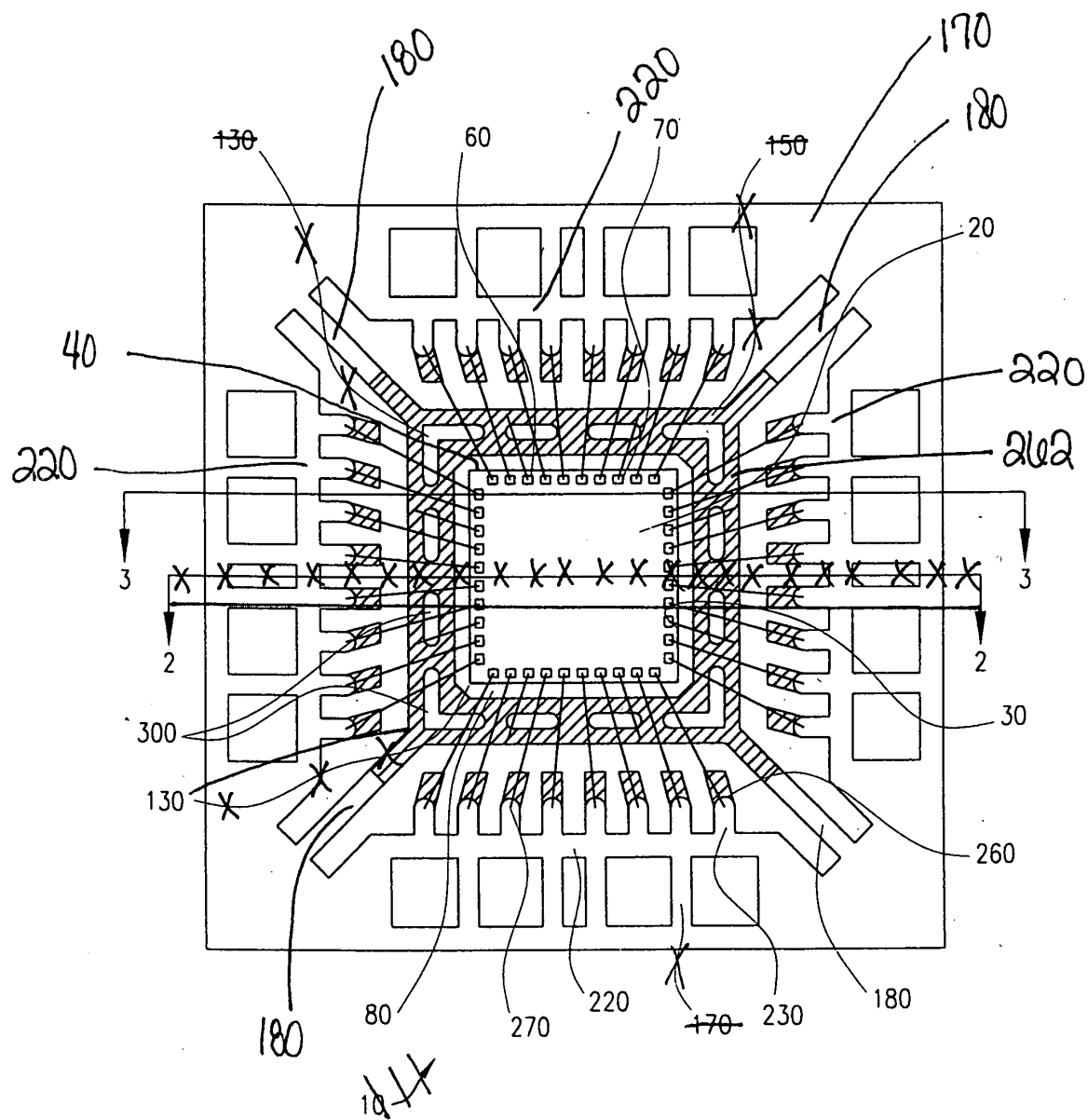


FIG. 1

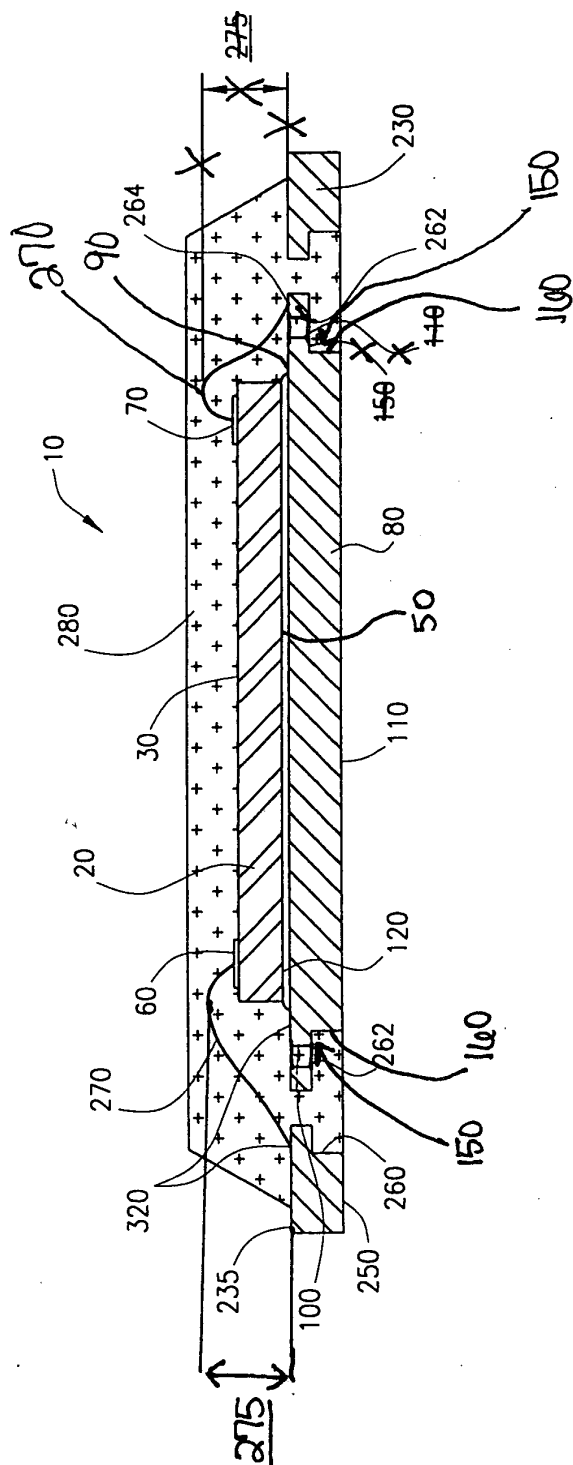


FIG. 2

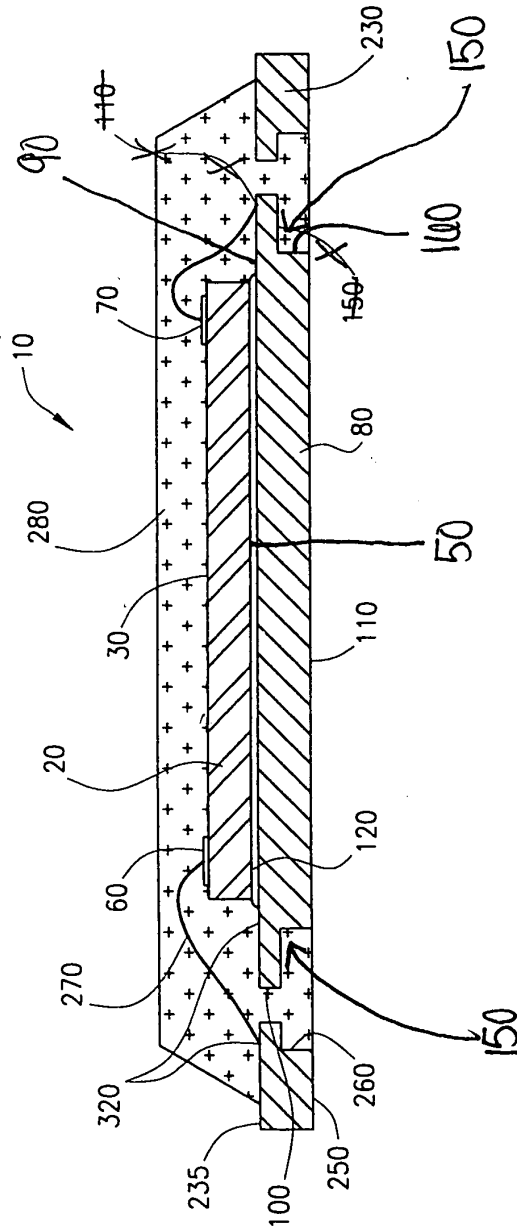
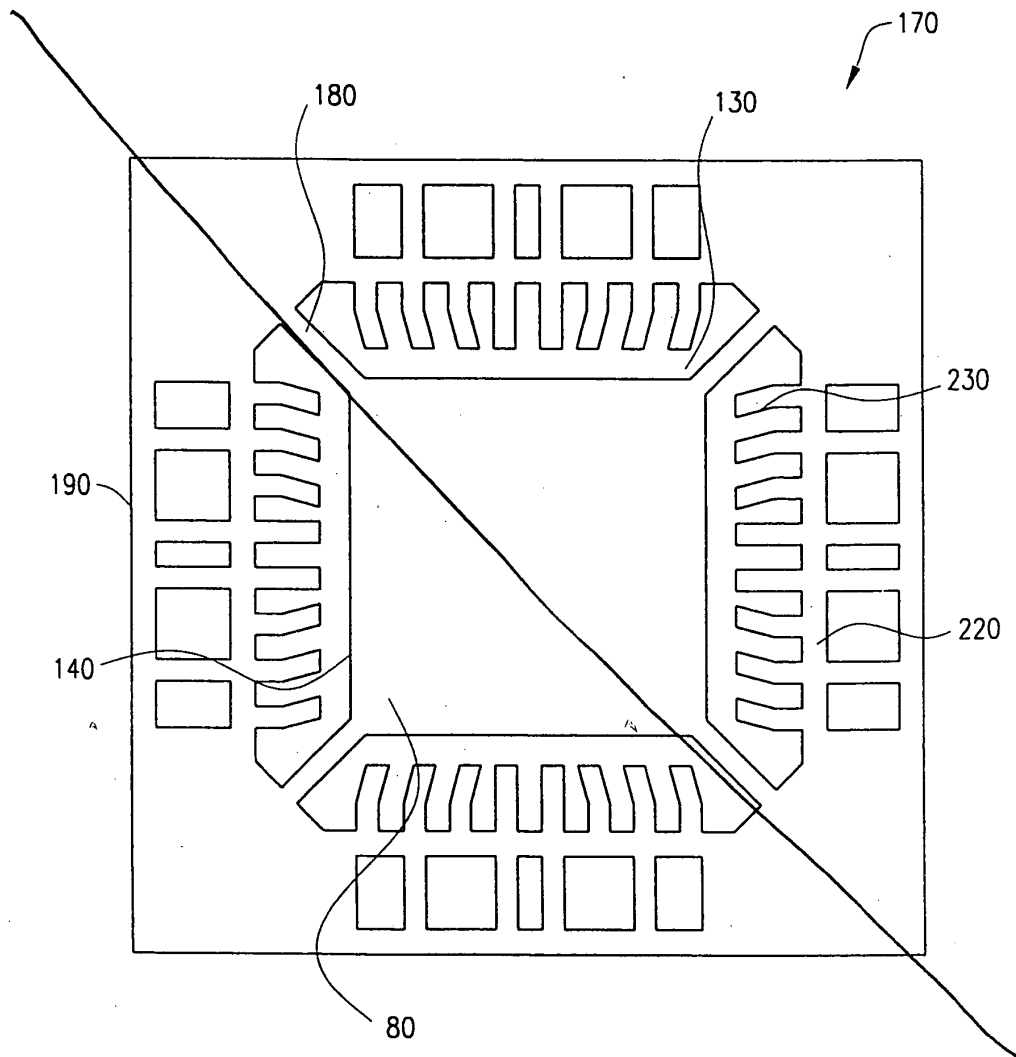


FIG. 3



~~FIG. 4~~

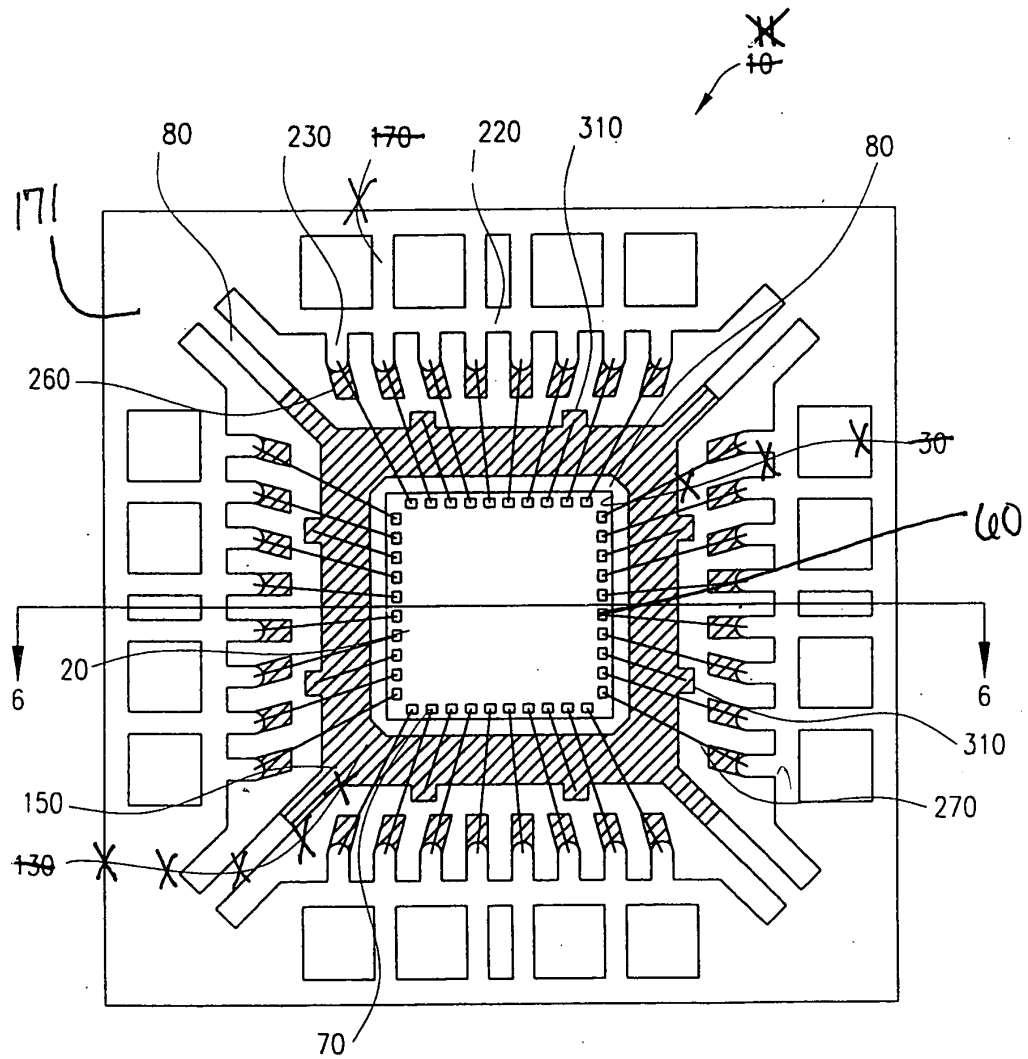


FIG. 5
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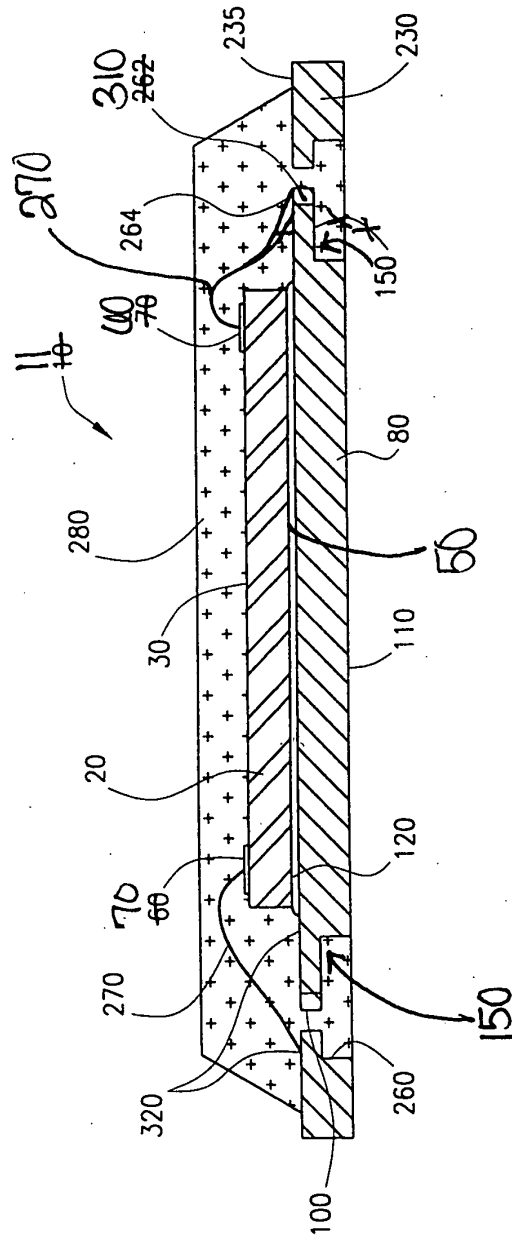


FIG. 65